

Notice of Allowability

Application No.

10/631,958

Examiner

Maryam Monshipouri

Applicant(s)

KOSSIDA ET AL.

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 10, 12, 13, 14 and 23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date filed 8/1/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 9/14/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other See Continuation Sheet

Continuation of Attachment(s) 9. Other: see attachments to interview summary.

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An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Ms. Lisa M. Hemmendinger, on 9/15/2005.

Examiner's Amendment to the Claims

Cancel claims 11 and 15.

In claim 10, line 2, after "consisting of " delete "(a) ".

In claim 10, line 2, after "SEQ ID NOS:", delete "2".

In claim 10, lines 2-3, delete "and (b) biologically active variants thereof ".

In claim 14, line 2, after "consisting of " delete "(a) ".

In claim 14, line 3, after "SEQ ID NOS:", delete "2".

In claim 14, after "10," , delete "or", and substitute therefor --- and ---.

In claim 14, line 3, delete "and (b) biologically active variants thereof".

In claim 23, line 3, after "SEQ ID NOS:", delete "2".

In claim 23, line 2, after "consisting of " delete "(a) ".

In claim 23, line 3, after "11", delete ", and (b) biologically active variants thereof".

In claim 23, line 6, delete " claim 21' and substitute therefor --- detecting said polypeptide comprising the steps of: contacting a biological sample with said antibody to form a reagent –polypeptide complex; and

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detecting the antibody-polypeptide complex. ---.

This application is in condition for allowance except for the presence of claims 1-9, 16-22, 24-77 drawn to non-elected without traverse. Accordingly, claims 1-9, 16-22, 24-77 have been cancelled.

Cancel claims 1-9, 16-22, 24-77.

Examiner's Amendments to the Specification

In page 1, line 2, after "October 4, 2001," insert --- now abandoned ---.

The following is an **Examiner's Statement of Reasons for Allowance**:

Claims 10, 12-14 and 23 are directed to an isolated ceramide kinase of specific amino acid sequence and a specifically claimed fragment thereof with said activity, fusion proteins and kits comprising said polypeptides.

Claimed ceramide kinase and said fragment thereof are free of prior art. Further the prior art does not teach or suggest preparing such specifically claimed products. Hence said products are also novel and non-obvious.

Since said polypeptides are both novel and non-obvious fusion proteins and kits comprising said polypeptides are also novel and non-obvious.

Claims 10, 12-14 and 23 are allowed.

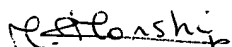
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on 7:00 a.m to 4:30 p.m. except for alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weber Jon P. can be reached on (571) 272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maryam Monshipouri Ph.D.

Primary Examiner

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: September 3, 2005, 04:08:02; Search time 64.5137 Seconds
(without alignments)
1990.064 Million cell updates/sec

Title: US-10-631-958-2

Perfect score: 1717

Sequence: 1 PKHLLVFIPFGKGQKRI.....KCSRFNFRFLIRHTNQDQ 326

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 1774312 seqs, 393823214 residues

Total number of hits satisfying chosen parameters: 1774312

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: Published Applications AA:

- 1: /cgn2_6/ptodata/2/pubaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/2/pubaa/PCT_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/2/pubaa/US06_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/2/pubaa/US06_PUBCOMB.pep.*
- 5: /cgn2_6/ptodata/2/pubaa/US07_NEW_PUB.pep.*
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- 7: /cgn2_6/ptodata/2/pubaa/US08_NEW_PUB.pep.*
- 8: /cgn2_6/ptodata/2/pubaa/US08_PUBCOMB.pep.*
- 9: /cgn2_6/ptodata/2/pubaa/US09A_PUBCOMB.pep.*
- 10: /cgn2_6/ptodata/2/pubaa/US09B_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/2/pubaa/US09C_PUBCOMB.pep.*
- 12: /cgn2_6/ptodata/2/pubaa/US09_NEW_PUB.pep.*
- 13: /cgn2_6/ptodata/2/pubaa/US10A_PUBCOMB.pep.*
- 14: /cgn2_6/ptodata/2/pubaa/US10B_PUBCOMB.pep.*
- 15: /cgn2_6/ptodata/2/pubaa/US10C_PUBCOMB.pep.*
- 16: /cgn2_6/ptodata/2/pubaa/US10D_PUBCOMB.pep.*
- 17: /cgn2_6/ptodata/2/pubaa/US10E_PUBCOMB.pep.*
- 18: /cgn2_6/ptodata/2/pubaa/US10_NEW_PUB.pep.*
- 19: /cgn2_6/ptodata/2/pubaa/US11A_PUBCOMB.pep.*
- 20: /cgn2_6/ptodata/2/pubaa/US11_NEW_PUB.pep.*
- 21: /cgn2_6/ptodata/2/pubaa/US60_NEW_PUB.pep.*
- 22: /cgn2_6/ptodata/2/pubaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1717	100.0	326	9 US-09-784-810A-11	Sequence 11, Appli
2	1717	100.0	326	16 US-09-963-425-2	Sequence 2, Appli
3	1717	100.0	326	16 US-10-531-531-2	Sequence 2, Appli
4	1717	100.0	326	18 US-10-531-531-2	Sequence 11, Appli
5	1717	100.0	471	9 US-09-784-810A-11	Sequence 6, Appli
6	1717	100.0	471	18 US-10-531-531-2	Sequence 6, Appli
7	1640.5	95.5	537	10 US-09-784-810A-11	Sequence 10, Appli
8	1640.5	95.5	537	15 US-09-784-810A-11	Sequence 40, Appli
9	1640.5	95.5	537	16 US-09-784-810A-11	Sequence 10, Appli
10	1640.5	95.5	537	16 US-09-784-810A-11	Sequence 121, App
11	1640.5	95.5	562	10 US-09-784-810A-11	Sequence 11, Appli

RESULT 1

US-09-784-810A-11

; Sequence 11 Application US/09784810A

; Patent No. US20020082203A1

; GENERAL INFORMATION:

; APPLICANT: RASTELLI, LUCA

; TITLE OF INVENTION: NOVEL SPHINGOSINE KINASES AND NUCLEIC ACIDS ENCODING

; FILE REFERENCE: 10716-08

; CURRENT APPLICATION NUMBER: US/09/784,810A

; CURRENT FILING DATE: 2001-02-14

; PRIOR APPLICATION NUMBER: 60/182,360

; PRIOR FILING DATE: 2000-02-14

; PRIOR APPLICATION NUMBER: 60/191,261

; PRIOR FILING DATE: 2000-03-22

; NUMBER OF SEQ ID NOS: 29

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 11

; LENGTH: 326

; TYPE: PRT

; ORGANISM: Homo sapiens

; US-09-784-810A-11

Query Match 100.0%; Score 1717; DB 9; Length 326;

Best Local Similarity 100.0%; Pred. No. 2.8e-172; Indels 0; Gaps 0;

Matches 326; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PKHLLVFIPFGKGQKRIYKVAFLPTLASITTDIGNKFFVYVITEHANQAKE 60

Db 1 PKHLLVFIPFGKGQKRIYKVAFLPTLASITTDIGNKFFVYVITEHANQAKE 60

Qy 61 TLVEINIDKVDGIVCVGGDGMFSEVLHGLIGRTQSGVQDNHPRVAVLPVSSLRIGIIPA 120

Db 61 TLVEINIDKVDGIVCVGGDGMFSEVLHGLIGRTQSGVQDNHPRVAVLPVSSLRIGIIPA 120

BEST AVAILABLE COPY

QY 121 GSTDCVCTVGTSDAETSAHIVVGDLSAMDVSSVHNSHTLLRYSLYSVLLGYFGYDIIK 180
DB 121 GSTDCVCTVGTSDAETSAHIVVGDLSAMDVSSVHNSHTLLRYSLYSVLLGYFGYDIIK 180
QY 181 DSEKRWLGLARYDFSLGKTLFSLHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSK 240
DB 181 DSEKRWLGLARYDFSLGKTLFSLHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSK 240
QY 241 QLEBEOKKALYGLEAADVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSS 300
DB 241 QLEBEOKKALYGLEAADVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSS 300
QY 301 DLILIRKSRNFLEFLIRHTNQDDQ 326
DB 301 DLILIRKSRNFLEFLIRHTNQDDQ 326

RESULT 2

US-09-969-896-2
; Sequence 2, Application US/09969896
; Publication No. US20030125533A1
; GENERAL INFORMATION:
; APPLICANT: Kossida, Sophia
; TITLE OF INVENTION: Regulation of human Sphingosine
; FILE REFERENCE: 004974.00594
; CURRENT APPLICATION NUMBER: US/09/969,896
; PRIOR FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: US 60/238,005
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 60/314,113
; PRIOR FILING DATE: 2001-08-23
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 326
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-969-896-2

Query Match 100.0%; Score 1717; DB 10; Length 326;
Best Local Similarity 100.0%; Pred. No. 2.8e-172;
Matches 326; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PKHLLVFINPFGGKGQKRIYERKVAFLFTLASITTDIIGNKFYVNVVEVITEHANOAKE 60
DB 1 PKHLLVFINPFGGKGQKRIYERKVAFLFTLASITTDIIGNKFYVNVVEVITEHANOAKE 60
QY 61 TLYEINIDKYGIVCGDGMFSEVLHGLIGRTORSAGVDONHPRAVLVPSSLRIGIIPA 120
DB 61 TLYEINIDKYGIVCGDGMFSEVLHGLIGRTORSAGVDONHPRAVLVPSSLRIGIIPA 120
QY 121 GSTDCVCTVGTSDAETSAHIVVGDLSAMDVSSVHNSHTLLRYSLYSVLLGYFGYDIIK 180
DB 121 GSTDCVCTVGTSDAETSAHIVVGDLSAMDVSSVHNSHTLLRYSLYSVLLGYFGYDIIK 180
QY 181 DSEKRWLGLARYDFSLGKTLFSLHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSK 240
DB 181 DSEKRWLGLARYDFSLGKTLFSLHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSK 240
QY 241 QLEBEOKKALYGLEAADVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSS 300
DB 241 QLEBEOKKALYGLEAADVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSS 300
QY 301 DLILIRKSRNFLEFLIRHTNQDDQ 326
DB 301 DLILIRKSRNFLEFLIRHTNQDDQ 326

RESULT 3

US-10-631-958-2
; Sequence 2, Application US/10631958

Publication No. US20040192580A1
; GENERAL INFORMATION:
; APPLICANT: Kossida, Sophia
; TITLE OF INVENTION: Regulation of human Sphingosine
; FILE REFERENCE: 004974.00594
; CURRENT APPLICATION NUMBER: US/10/631,958
; PRIOR FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: US/09/969,896
; PRIOR FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: US 60/238,005
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 60/314,113
; PRIOR FILING DATE: 2001-08-23
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 326
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-631-958-2

Query Match 100.0%; Score 1717; DB 16; Length 326;
Best Local Similarity 100.0%; Pred. No. 2.8e-172;
Matches 326; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 PKHLLVFINPFGGKGQKRIYERKVAFLFTLASITTDIIGNKFYVNVVEVITEHANOAKE 60
QY 61 TLYEINIDKYGIVCGDGMFSEVLHGLIGRTORSAGVDONHPRAVLVPSSLRIGIIPA 120
DB 61 TLYEINIDKYGIVCGDGMFSEVLHGLIGRTORSAGVDONHPRAVLVPSSLRIGIIPA 120
QY 121 GSTDCVCTVGTSDAETSAHIVVGDLSAMDVSSVHNSHTLLRYSLYSVLLGYFGYDIIK 180
DB 121 GSTDCVCTVGTSDAETSAHIVVGDLSAMDVSSVHNSHTLLRYSLYSVLLGYFGYDIIK 180
QY 181 DSEKRWLGLARYDFSLGKTLFSLHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSK 240
DB 181 DSEKRWLGLARYDFSLGKTLFSLHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSK 240
QY 241 QLEBEOKKALYGLEAADVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSS 300
DB 241 QLEBEOKKALYGLEAADVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSS 300
QY 301 DLILIRKSRNFLEFLIRHTNQDDQ 326
DB 301 DLILIRKSRNFLEFLIRHTNQDDQ 326

RESULT 4

US-10-876-281-11
; Sequence 11, Application US/10876281
; Publication No. US20050123942A1
; GENERAL INFORMATION:
; APPLICANT: RASTELLI, LUCA
; TITLE OF INVENTION: NOVEL SPHINGOSINE KINASES AND NUCLEIC ACIDS ENCODING
; FILE REFERENCE: 10716-08
; CURRENT APPLICATION NUMBER: US/10/876,281
; CURRENT FILING DATE: 2004-06-24
; PRIOR APPLICATION NUMBER: US/09/784,810
; PRIOR FILING DATE: 2001-02-14
; PRIOR APPLICATION NUMBER: 60/182,360
; PRIOR FILING DATE: 2000-02-14
; PRIOR APPLICATION NUMBER: 60/191,261
; PRIOR FILING DATE: 2000-03-22
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
; LENGTH: 326
; TYPE: PRT

Matches 537; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MGATGAAPLOSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
DB 26 MGATGAAPLOSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 85
QY 61 EETDVHGKHGSGKQKMEKPYAFVHCVRARRHWKWAQVTFWCPEQLCHLWLTQLR 120
DB 86 EETDVHGKHGSGKQKMEKPYAFVHCVRARRHWKWAQVTFWCPEQLCHLWLTQLR 145
QY 121 EMLEKLTSPKHLVFNPPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
DB 146 EMLEKLTSPKHLVFNPPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 205
QY 181 YEINIDKYDGIIVCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGS 240
DB 206 YEINIDKYDGIIVCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGS 265
QY 241 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSSVHNSLTLRYSVSLGFGYGDIIKDS 300
DB 266 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSSVHNSLTLRYSVSLGFGYGDIIKDS 325
QY 301 EKKRWGLARYDFSGKLTFLSHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 360
DB 326 EKKRWGLARYDFSGKLTFLSHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 385
QY 361 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
DB 386 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 445
QY 421 ILIRKCSRFNRLFLIRHTNQDQDFTFVVEYVRVKKQFTSKHMEDESDLKEGGKKRF 480
DB 446 ILIRKCSRFNRLFLIRHTNQDQDFTFVVEYVRVKKQFTSKHMEDESDLKEGGKKRF 505
QY 481 GHICSSHPSCCTVSNSSNWCNCDGEVLHSPAIEVRVHCOLVRLFARGIENPKPDSHS 537
DB 506 GHICSSHPSCCTVSNSSNWCNCDGEVLHSPAIEVRVHCOLVRLFARGIENPKPDSHS 562

RESULT 6
US-10-631-958-11
Sequence 11, Application US/10631958
Publication No. US20040192580A1
GENERAL INFORMATION:
APPLICANT: Kossida, Sophia
TITLE OF INVENTION: Regulation of human Sphingosine
FILE REFERENCE: 004974.00594
CURRENT APPLICATION NUMBER: US/10/631,958
CURRENT FILING DATE: 2003-08-01
PRIOR APPLICATION NUMBER: US/09/969,896
PRIOR FILING DATE: 2001-10-04
PRIOR APPLICATION NUMBER: US 60/238,005
PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: US 60/314,113
PRIOR FILING DATE: 2001-08-23
NUMBER OF SEQ ID NOS: 16
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 11
TYPE: PRT
ORGANISM: Homo sapiens
US-10-631-958-11

Query Match 100.0%; Score 2888; DB 16; Length 562;
Best Local Similarity 100.0%; Pred. No. 3.2e-278;
Matches 537; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MGATGAAPLOSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
DB 26 MGATGAAPLOSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 85
QY 61 EETDVHGKHGSGKQKMEKPYAFVHCVRARRHWKWAQVTFWCPEQLCHLWLTQLR 120

DB 86 EETDVHGKHGSGKQKMEKPYAFVHCVRARRHWKWAQVTFWCPEQLCHLWLTQLR 145
QY 121 EMLEKLTSPKHLVFNPPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
DB 146 EMLEKLTSPKHLVFNPPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 205
QY 181 YEINIDKYDGIIVCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGS 240
DB 206 YEINIDKYDGIIVCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGS 265
QY 241 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSSVHNSLTLRYSVSLGFGYGDIIKDS 300
DB 266 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSSVHNSLTLRYSVSLGFGYGDIIKDS 325
QY 301 EKKRWGLARYDFSGKLTFLSHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 360
DB 326 EKKRWGLARYDFSGKLTFLSHHCYEGTVSFLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 385
QY 361 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
DB 386 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 445
QY 421 ILIRKCSRFNRLFLIRHTNQDQDFTFVVEYVRVKKQFTSKHMEDESDLKEGGKKRF 480
DB 446 ILIRKCSRFNRLFLIRHTNQDQDFTFVVEYVRVKKQFTSKHMEDESDLKEGGKKRF 505
QY 481 GHICSSHPSCCTVSNSSNWCNCDGEVLHSPAIEVRVHCOLVRLFARGIENPKPDSHS 537
DB 506 GHICSSHPSCCTVSNSSNWCNCDGEVLHSPAIEVRVHCOLVRLFARGIENPKPDSHS 562

RESULT 7
US-10-315-597A-2

Sequence 2, Application US/10315597A
Publication No. US20030162206A1
GENERAL INFORMATION:
APPLICANT: Sugiura, Masako
APPLICANT: Kono, Keita
APPLICANT: Kohama, Takafumi
TITLE OF INVENTION: Ceramide Kinase and DNA Encoding It
FILE REFERENCE: 02658CIP/HG
CURRENT APPLICATION NUMBER: US/10/315,597A
CURRENT FILING DATE: 2002-12-10
PRIOR APPLICATION NUMBER: JP 2000-178039
PRIOR FILING DATE: 2000-06-14
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 537
TYPE: PRT
ORGANISM: Homo sapiens
US-10-315-597A-2

Query Match 99.7%; Score 2880; DB 14; Length 537;
Best Local Similarity 99.6%; Pred. No. 1.9e-277;
Matches 535; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MGATGAAPLOSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
DB 1 MGATGAAPLOSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
QY 61 EETDVHGKHGSGKQKMEKPYAFVHCVRARRHWKWAQVTFWCPEQLCHLWLTQLR 120
DB 61 EETDVHGKHGSGKQKMEKPYAFVHCVRARRHWKWAQVTFWCPEQLCHLWLTQLR 120
QY 121 EMLEKLTSPKHLVFNPPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
DB 121 EMLEKLTSPKHLVFNPPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
QY 181 YEINIDKYDGIIVCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGS 240
DB 181 YEINIDKYDGIIVCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGS 240

QY 241 TDCVCYSTVGTSDAETSAHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGFYGDIIKOS 300
 Db 241 TDCVCYSTVGTSDAETSAHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGFYGDIIKOS 300
 QY 301 EKKRWGLARYDESLKTFSLSHCYEGTVSFLPAQHTVGSPPDRKPCACGFCVCRSQKQ 360
 Db 301 EKKRWGLARYDESLKTFSLSHCYEGTVSFLPAQHTVGSPPDRKPCACGFCVCRSQKQ 360
 QY 361 LEEBOKKALYGLBAEDVEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
 Db 361 LEEBOKKALYGLBAEDVEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
 QY 421 ILIRKSRNFPLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRF 480
 Db 421 ILIRKSKENFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRF 480
 QY 481 GHICSSHPCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
 Db 481 GHICSSHPCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537

RESULT 8

US-09-784-810A-6
 ; Sequence 6, Application US/09784810A
 ; Patent No. US20020082203A1
 ; GENERAL INFORMATION:
 ; APPLICANT: RASTELLI, LUCA
 ; TITLE OF INVENTION: NOVEL SPHINGOSINE KINASES AND NUCLEIC ACIDS ENCODING
 ; FILE REFERENCE: 10716-08
 ; CURRENT APPLICATION NUMBER: US/09/784,810A
 ; PRIOR FILING DATE: 2001-02-14
 ; PRIOR FILING DATE: 2000-02-14
 ; PRIOR FILING DATE: 2000-02-14
 ; PRIOR FILING DATE: 2000-03-22
 ; NUMBER OF SEQ ID NOS: 29
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 6
 ; LENGTH: 471
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-784-810A-6

Query Match 85.1%; Score 2456.5; DB 9; Length 471;
 Best Local Similarity 97.5%; Pred. No. 2.4e-235;
 Matches 459; Conservative 1; Mismatches 0; Indels 11; Gaps 1;
 QY 78 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLSRPKHLVFI 137
 Db 1 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLSRPKHLVFI 60
 QY 138 NPPGGKGGKRIYERKVAFLFTLASITTDII-----VTEHANOAKETLYEINID 186
 Db 61 NPPGGKGGKRIYERKVAFLFTLASITTDIIIGNKFYVYVEVITEHANOAKETLYEINID 120
 QY 187 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 246
 Db 121 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 180
 QY 247 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGFYGDIIKDSEKKRWL 306
 Db 181 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGFYGDIIKDSEKKRWL 240
 QY 307 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPPDRKPCACGFCVCRSQKQLEEBEQ 366
 Db 241 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPPDRKPCACGFCVCRSQKQLEEBEQ 300
 QY 367 KALYGLEAAEDVEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 426
 Db 301 KALYGLEAAEDVEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 360

RESULT 10

US-09-784-810A-11

QY 427 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 486
 Db 361 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 420
 QY 487 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
 Db 421 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 471

RESULT 9

US-10-876-281-6
 ; Sequence 6, Application US/10876281
 ; Publication No. US20050123942A1
 ; GENERAL INFORMATION:
 ; APPLICANT: RASTELLI, LUCA
 ; TITLE OF INVENTION: NOVEL SPHINGOSINE KINASES AND NUCLEIC ACIDS ENCODING
 ; FILE REFERENCE: 10716-08
 ; CURRENT APPLICATION NUMBER: US/10/876,281
 ; PRIOR FILING DATE: 2004-06-24
 ; PRIOR FILING DATE: US/09/784,810
 ; PRIOR FILING DATE: 2001-02-14
 ; PRIOR FILING DATE: 2000-02-14
 ; PRIOR FILING DATE: 2000-02-14
 ; PRIOR FILING DATE: 2000-03-22
 ; NUMBER OF SEQ ID NOS: 29
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 6
 ; LENGTH: 471
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-876-281-6

Query Match 85.1%; Score 2456.5; DB 18; Length 471;
 Best Local Similarity 97.5%; Pred. No. 2.4e-235;
 Matches 459; Conservative 1; Mismatches 0; Indels 11; Gaps 1;
 QY 78 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLSRPKHLVFI 137
 Db 1 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLSRPKHLVFI 60
 QY 138 NPPGGKGGKRIYERKVAFLFTLASITTDII-----VTEHANOAKETLYEINID 186
 Db 61 NPPGGKGGKRIYERKVAFLFTLASITTDIIIGNKFYVYVEVITEHANOAKETLYEINID 120
 QY 187 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 246
 Db 121 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 180
 QY 247 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGFYGDIIKDSEKKRWL 306
 Db 181 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGFYGDIIKDSEKKRWL 240
 QY 307 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPPDRKPCACGFCVCRSQKQLEEBEQ 366
 Db 241 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPPDRKPCACGFCVCRSQKQLEEBEQ 300
 QY 367 KALYGLEAAEDVEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 426
 Db 301 KALYGLEAAEDVEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 360
 QY 427 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 486
 Db 361 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 420
 QY 487 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
 Db 421 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 471

Attachment

Qy 326 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 386 LEEBOKKALYGLAABDVVEQVVCCKFLAINATMNSCACRRSPRGLSPAHLGDGSSDL 445
Db 361 LEEBOKKALYGLAABDVVEQVVCCKFLAINATMNSCACRRSPRGLSPAHLGDGSSDL 420
Qy 446 ILIRKCSRFNPLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 505
Db 421 ILIRKCSRFNPLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 480
Qy 506 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCQLVRLFARGIEENPKPDSSH 562
Db 481 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCQLVRLFARGIEENPKPDSSH 537

RESULT 11
US-10-631-958-10
; Sequence 10, Application US/10631958
; GENERAL INFORMATION:
; APPLICANT: Kossida, Sophia
; TITLE OF INVENTION: Regulation of human Sphingosine
; FILE REFERENCE: 004974.00594
; CURRENT APPLICATION NUMBER: US/10/631,958
; CURRENT FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: US/09/969,896
; PRIOR FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: US 60/238,005
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 60/314,113
; PRIOR FILING DATE: 2001-08-23
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 537
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-631-958-10

Query Match 95.5%; Score 2888; DB 32; Length 537;
Best Local Similarity 100.0%; Pred. No. 5e-279;
Matches 537; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 26 MGATCAAEPLQSVLVWVKQRCVSLLEPARALLRWSPGPGAGAGADACSPVPSIIIV 85
Db 1 MGATCAAEPLQSVLVWVKQRCVSLLEPARALLRWSPGPGAGAGADACSPVPSIIIV 60
Qy 86 BETDVHGHQSGKQKMEKPYAFTVHCVRARRHRWKWAQVTFWCPBEOQLCHLWLTQLR 145
Db 61 BETDVHGHQSGKQKMEKPYAFTVHCVRARRHRWKWAQVTFWCPBEOQLCHLWLTQLR 120
Qy 146 EMLEKLTSPKHLVPIPFPGKGQGGKIYERKVAFLFTLASITTDIIIVTEHANOAKETL 205
Db 121 EMLEKLTSPKHLVPIPFPGKGQGGKIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
Qy 206 YEINIDKYDGIYCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPSSLRIGIIPAGS 265
Db 181 YEINIDKYDGIYCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPSSLRIGIIPAGS 240
Qy 266 TDCVYSTVGTSDAETSALHIVGDSLAMDVSSVHHNSTLLRYSVSLGIFYGDIKDS 325
Db 241 TDCVYSTVGTSDAETSALHIVGDSLAMDVSSVHHNSTLLRYSVSLGIFYGDIKDS 300
Qy 326 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 206 YEINIDKYDGIYCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPSSLRIGIIPAGS 265
Db 181 YEINIDKYDGIYCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPSSLRIGIIPAGS 240
Qy 266 TDCVYSTVGTSDAETSALHIVGDSLAMDVSSVHHNSTLLRYSVSLGIFYGDIKDS 325
Db 241 TDCVYSTVGTSDAETSALHIVGDSLAMDVSSVHHNSTLLRYSVSLGIFYGDIKDS 300
Qy 326 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 386 LEEBOKKALYGLAABDVVEQVVCCKFLAINATMNSCACRRSPRGLSPAHLGDGSSDL 445
Db 361 LEEBOKKALYGLAABDVVEQVVCCKFLAINATMNSCACRRSPRGLSPAHLGDGSSDL 420

Qy 446 ILIRKCSRFNPLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 505
Db 421 ILIRKCSRFNPLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 480
Qy 506 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCQLVRLFARGIEENPKPDSSH 562
Db 481 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCQLVRLFARGIEENPKPDSSH 537

RESULT 12
US-10-631-597A-2
; Sequence 2, Application US/10315597A
; GENERAL INFORMATION:
; APPLICANT: Sugiyura, Masako
; APPLICANT: Kono, Keita
; APPLICANT: Kohama, Takafumi
; TITLE OF INVENTION: Ceramide Kinase and DNA Encoding It
; FILE REFERENCE: 02658CIP/HG
; CURRENT APPLICATION NUMBER: US/10/315,597A
; CURRENT FILING DATE: 2002-12-10
; PRIOR APPLICATION NUMBER: JP 2000-178039
; PRIOR FILING DATE: 2000-06-14
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 537
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-315-597A-2

Query Match 95.2%; Score 2880; DB 29; Length 537;
Best Local Similarity 99.6%; Pred. No. 3.2e-278;
Matches 535; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 26 MGATCAAEPLQSVLVWVKQRCVSLLEPARALLRWSPGPGAGAGADACSPVPSIIIV 85
Db 1 MGATCAAEPLQSVLVWVKQRCVSLLEPARALLRWSPGPGAGAGADACSPVPSIIIV 60
Qy 86 BETDVHGHQSGKQKMEKPYAFTVHCVRARRHRWKWAQVTFWCPBEOQLCHLWLTQLR 145
Db 61 BETDVHGHQSGKQKMEKPYAFTVHCVRARRHRWKWAQVTFWCPBEOQLCHLWLTQLR 120
Qy 146 EMLEKLTSPKHLVPIPFPGKGQGGKIYERKVAFLFTLASITTDIIIVTEHANOAKETL 205
Db 121 EMLEKLTSPKHLVPIPFPGKGQGGKIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
Qy 206 YEINIDKYDGIYCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPSSLRIGIIPAGS 265
Db 181 YEINIDKYDGIYCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPSSLRIGIIPAGS 240
Qy 266 TDCVYSTVGTSDAETSALHIVGDSLAMDVSSVHHNSTLLRYSVSLGIFYGDIKDS 325
Db 241 TDCVYSTVGTSDAETSALHIVGDSLAMDVSSVHHNSTLLRYSVSLGIFYGDIKDS 300
Qy 326 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKWGLGARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 386 LEEBOKKALYGLAABDVVEQVVCCKFLAINATMNSCACRRSPRGLSPAHLGDGSSDL 445
Db 361 LEEBOKKALYGLAABDVVEQVVCCKFLAINATMNSCACRRSPRGLSPAHLGDGSSDL 420
Qy 446 ILIRKCSRFNPLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 505
Db 421 ILIRKCSRFNPLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 480
Qy 506 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCQLVRLFARGIEENPKPDSSH 562
Db 481 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCQLVRLFARGIEENPKPDSSH 537

RESULT 13